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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,878	08/29/2001	Emmanuel Lazaridis	1372.61.PRCWOUS	5633
21901	7590	03/01/2005	EXAMINER	
SMITH & HOPEN PA 15950 BAY VISTA DRIVE SUITE 220 CLEARWATER, FL 33760			MILLER, MARINA I	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/940,878

Applicant(s)

LAZARIDIS, EMMANUEL

Examiner

Marina Lebedeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/21/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

The applicant was required to elect among groups drawn to different inventions in the restriction requirement mailed 12/21/2004. Applicant properly elected Group IV, claims 21-36, in reply filed 1/21/2005. The restriction requirement also set forth a requirement for election of species, but did not clearly state that applicant was required to elect a single species from EACH group set forth. The examiner regrets the confusion and inconvenience to applicant. Applicant is again required to elect a single group and a single species from EACH of Group A, B, and C set forth below. Applicants is required to elect from the following:

***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14, drawn to a method for identifying latent classes, classified in class 706, subclass 46.
- II. Claims 15-17, drawn to a computer-implemented method for identifying latent classes comprising steps different from those of Group I, classified in class 702, subclass 19.
- III. Claims 18-20 and 31, drawn to a method of classifying objects, classified in class 702, subclass 19.
- IV. Claims 21-23, drawn to a method for identifying genes, classified in class 702, subclass 20.
- V. Claims 24-25, drawn to a method of determining in a sample a gene linked to disease, classified in class 702, subclass 20.

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- VI. Claim 26 and 34, drawn to a method of identifying, in a library, a gene linked to metastasis, classified in class 435, subclass 6.
- VII. Claims 27-28, drawn to a method of predicting, classified in class 702, subclass 19.
- VIII. Claim 29, drawn to a method of screening for a drug, classified in class 435, subclass 6.
- IX. Claim 30, drawn to a method for identifying genes using variables as a matrix in a multidimensional space, classified in class 703, subclass 2.
- X. Claim 32, drawn to a method of classifying objects, classified in class 702, subclass 19.
- XI. Claim 33, drawn to a method of generating rules, classified in class 703, subclass 2.
- XII. Claim 35, drawn to a method of identifying genes linked to a condition of interest, classified in class 703, subclass 2.
- XIII. Claim 36, drawn to a method for analyzing an image of objects, classified in class 382, subclass 128.

The inventions are distinct, each from the other because of the following reasons:

The methods of Invention I-XV can be shown to be distinct because they are physically and functionally different, and are not required one to the other. In instant case of distinct inventions, each method has a different goal and method steps. Each method includes steps requiring manipulation of data are not required for the other methods.

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Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the search required for each group is not coextensive with that required for the other groups, restriction for examination purposes as indicated is proper.

***Specie Election Requirement***

This application contains claims directed to the following patentably distinct species of the claimed invention:

- A) an algorithm, from among those recited in claims 11-13, for example.
- B) a cellular phenotype, , from among those recited in claims 23, for example.
- C) a morphogenetic descriptor, , from among those recited in claim 28, for example.

If Group I is elected, then applicant is required to elect a single species from Group A above.

If Group IV is elected, then applicant is required to elect a single species from Group B above.

If Group VII is elected, then applicant is required to elect a single species from Group C above.

Species of group A, different algorithms are divergent because parameters represented by the solutions are different and independent from each other. Data generated from one type of solution is expected to be different from data generated by any other type of profile.

Species of group B, a disease, a cellular process, a physiological pathway, a signaling pathway, a protein, and a drug effect are distinct because they are structurally unrelated, and each has a distinct chemical composition and function, therefore data for each phenotype are independent.

Species of group C: different morphologic descriptions are distinct because they are generally described in separate arts and data obtained by model are different type of data and independent from each other.

Currently, claims 1-10, 14-22, 24-27, 29-36 are generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the

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examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Miller whose telephone number is (571)272-6101. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, Ph.D., can be reached on (571)272-0718. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Miller  
Examiner  
Art Unit 1631

MM

MARJORIE MORAN  
PATENT EXAMINER

*Marjorie A. Moran*  
7/22/05